Type: Poster Presentation

Final Abstract Number: 41.040
Session: Poster Session I
Date: Thursday, March 3, 2016
Time: 12:45-14:15
Room: Hall 3 (Posters & Exhibition)

Microbiological profile of aerobic bacterial isolates causing complicated intra-abdominal infections managed at a tertiary level health care providing facility in Northern India

A. Deep*, S. Marwah, S. Pandey, U. Chaudhary

Pt. B.D. Sharma, Post Graduate Institute of Medical Sciences, Rohtak, Haryana, India

Background: Complicated intra-abdominal infections (cIAIs) have been described by the surgical society (SIS), and the Infectious Disease Society of America (IDSA), as the infection of an abdominal organ that has spread to other abdominal structures. These infections range from uncomplicated appendicitis to fecal peritonitis. The leading site of pathology in our country, in contrast to western countries is gastro-duodenal perforations and enteric perforations whereas it is colonic perforation in western countries.

Methods & Materials: The present study was planned to determine the susceptibility profile of the various isolates from patients with cIAIs getting managed at Pt. B.D. Sharma, Post Graduate Institute of Medical Sciences, Rohtak, a tertiary level health care providing facility in northern region of India. The patients were selected based on pre-determined inclusion and exclusion criterion. Detailed clinical work-up and investigations were done at the time of admission. The peritoneal fluid/pus was sent for culture and sensitivity at the time of the intervention. The isolates were later identified following standard protocol and their antimicrobial susceptibility was determined by Kirby Bauer disk diffusion method, and the treatment where required was changed accordingly.

Results: A total of 114 intra-peritoneal fluid samples were submitted for microbiological evaluation. Out of these, 60 (52.6%) samples were sterile. A total of 57 aerobic bacterial isolates were recovered from 54 peritoneal fluid/pus samples. *Escherichia coli* (64.8%) was the commonest isolate recovered followed, by *Klebsiella* spp. in 12.2% of cases among the gram negative isolates. *Enterococcus* spp. was the commonest (41%) Gram positive isolate. Cefixime (93%) was the most effective antimicrobial agents in *Escherichia coli* followed by cefepime (88%) and co-amoxyclav (86%). Co-amoxyclav was the most effective drug in case of *Klebsiella* isolates (95%), followed by cefixime and ciprofloxacin (81%).

Conclusion: The antimicrobial susceptibility profile of bacterial isolates causing such infections can influence the final outcome in these conditions. Knowledge of the antimicrobial susceptibility profiles of the prevailing isolates can help in designing the empiric therapy for the cIAIs, which can influence the outcome of these infections favorably.

http://dx.doi.org/10.1016/j.ijid.2016.02.235

Type: Poster Presentation

Final Abstract Number: 41.041
Session: Poster Session I
Date: Thursday, March 3, 2016
Time: 12:45-14:15
Room: Hall 3 (Posters & Exhibition)

Antibiotics susceptibility pattern of Vibrio cholerae O1 Ogawa, isolated during Cholera outbreak investigations in Mozambique from 2014 to 2015

L.C. Dengo Baloi

National Institute of Health, Maputo, Mozambique

Background: Mozambique have registered cyclically epidemic outbreaks of cholera. Antibiotic therapy is recommended in specific situations for management and control of cholera outbreaks. However, an increase in antibiotics resistance rates of *Vibrio cholerae* has been reported in several epidemic outbreaks worldwide. On the other hand, there are few recent records of continuous surveillance of antibiotics susceptibility pattern of *Vibrio cholerae* in Mozambique.

Methods & Materials: For susceptibility testing, we used *Vibrio cholerae O1 Ogawa* confirmed by culture, oxidase reaction and serology. Samples were collected in the context of surveillance and response to Cholera outbreaks, in the period of january –April from the years 2014 and 2015; Sent to and tested in the National Reference Laboratory of Microbiology from the National Institute of Health – Mozambique. Samples were from cholera treatment centers of Metangula (09), Memba (01), Moatize (01), Morrumbala (01) districts, Tete City (08), City of Quelimane (01), Lichinga (06) and Nampula (86).

Antibiotics susceptibility pattern was determined by disk diffusion method Kirby Bauer. Antibiotic susceptibility results were interpreted by following recommendations of CLSI (Clinical and Laboratory Standards Institute) 2014.

Results: Among 117 isolates from *Vibrio cholerae O1 Ogawa* we found resistance of 100% (53/53) to trimethoprim-sulfamethoxazole, 100% (54/54) ampicillin, 99% (73/74) for Nalidixic Acid, 97% (64/66) to Chloramphenicol, 95% (42/44) for Nitrofurantoin, 82% (80/97) Tetracycline, 56% (39/70) Azithromycin and 0% (0/101) for Ciprofloxacin.

Conclusion: Our work shows that the strains of the *Vibrio cholerae* isolated during outbreak investigation in Mozambique in the years 2014-2015 have a high frequency of resistance to available antibiotics, with the exception of Ciprofloxacin; and a rapid evolution of the resistance of antibiotics such as Nalidixic Acid, Chlorafenicol, Nitrofurantoin, and Tetracyclin. I'ts outsatndind the appearance of resistant strains to Azythromycin, which is a recommended antibiotic for Cholera treatment.

Since the appearance of this resistance can influence Cholera control strategies, continuous monitoring of epidemic strains is crucial.

http://dx.doi.org/10.1016/j.ijid.2016.02.236